

REMARKS

Claims 1-9 are all the claims pending in the application, the claims having been editorially amended. Reconsideration of the application and allowance of all claims are respectfully requested.

It is noted that the examiner has not initialed any of the references listed on the forms PTO/SB/08 submitted by applicants with the Information Disclosure Statements. It is assumed this is an oversight, and initialing each of the references is respectfully requested to clarify that each has been considered and is of record.

Editorial amendments have been made to the specification responsive to paragraph 1 of the Office action.

Claims 1, 2 and 4-9 are rejected for anticipation by Barlev (US Pub 2005/0220180). Claim 3 is rejected as unpatentable over Barlev in view of Matsumoto et al (US Pub 2001/0053192). These rejections are respectfully traversed.

The present invention is directed to crosstalk cancellation with reduced computational complexity. Cancellation of crosstalk from only dominant interferers is known, as acknowledged in the Background discussion of the present application, but crosstalk cancellation for all tones of even just the dominant interferers is computationally complex. According to the present invention, in a multiple output system, a heuristic model is used to select a dominant interfering tone of at least one signal that is another of the outputs from the system, and cross-talk cancellation with respect to the dominant interfering tone is performed. This aspect of the invention is neither shown nor suggested in Barlev.

The examiner cites to lines 18-22 of the Abstract of Barlev in support of the anticipation rejection of claim 1, but the Abstract is only relevant in that it mentions the general concept of crosstalk cancellation. The examiner further refers to paragraphs [0040] and [0047], and these paragraphs are slightly more relevant in that they mention the cancellation only with respect to the twisted pair causing the worst interference. But cancellation only with respect to the most dominant interferer is acknowledged as prior art in the present application. What Barlev does not teach is the use of a heuristic model to determine dominant interfering tone of another one of the multiple outputs of the system.

The cited paragraphs [0170] and [0172] in fact teach away from the claimed invention, in that these paragraphs discuss identification of the most interfering radiator, and then discusses the computationally complex determination of the entire transfer function of that radiator, with no suggestion of determining only a dominant tone, and certainly not using a heuristic model approach.

For the above reasons, it is clear that Barlev does not teach the subject matter of claim 1. Matsumoto does not make up for the deficiencies of Barlev with respect to the subject matter of claim 1. Claim 7 distinguishes over the art for the same reasons as claim 1, as do all dependent claims.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. §1.111
USSN 10/690,505

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: April 27, 2007

/DJCushing/
David J. Cushing
Registration No. 28,703